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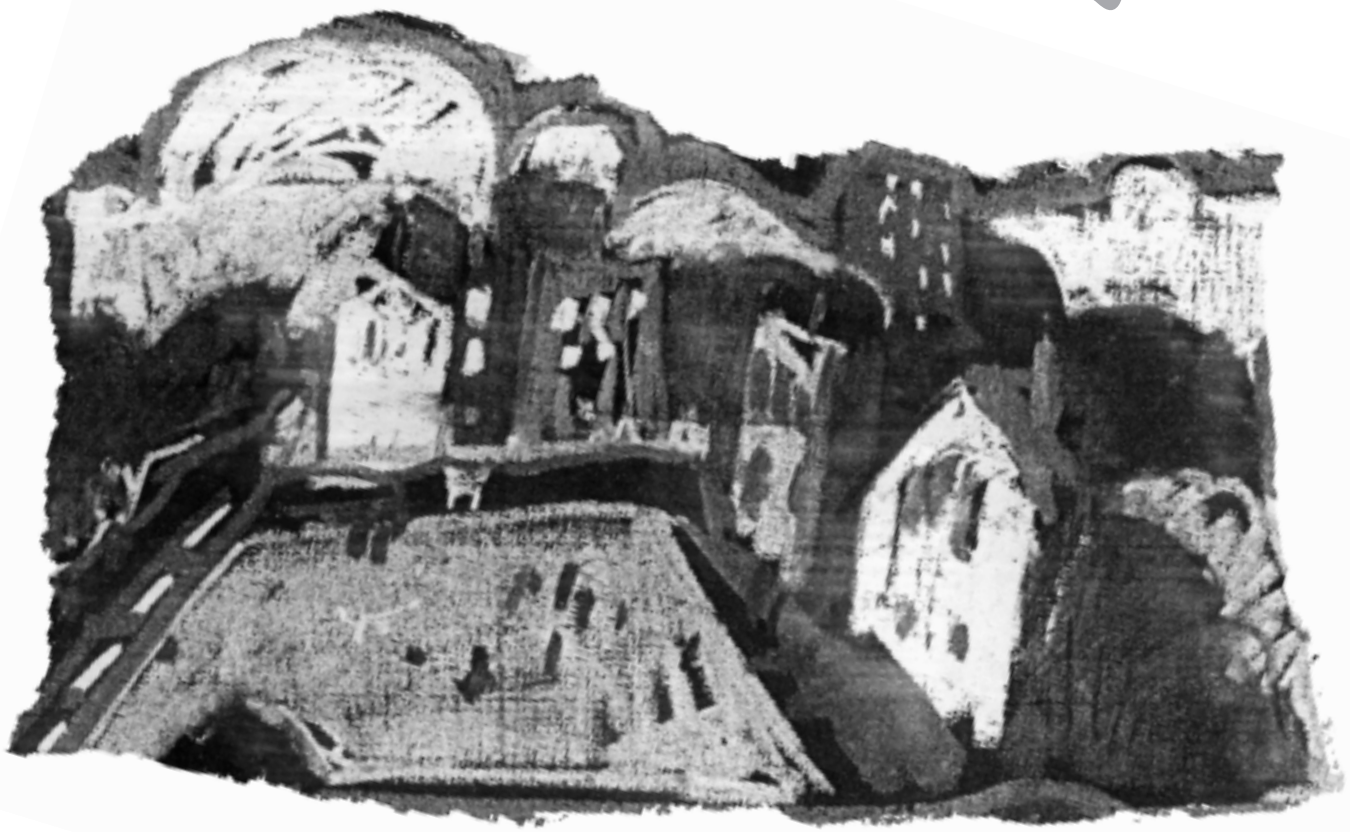
Cambridge Plan



6. CAMBRIDGE PLAN

The following section describes the city's major nodes, spines, and neighborhoods and makes general recommendations for pedestrian improvements. A comprehensive, specific list of problem intersections or sidewalks has not been included because a list of such problems could not be kept current, and proposed solutions generally require careful evaluation.

I. Street Classification

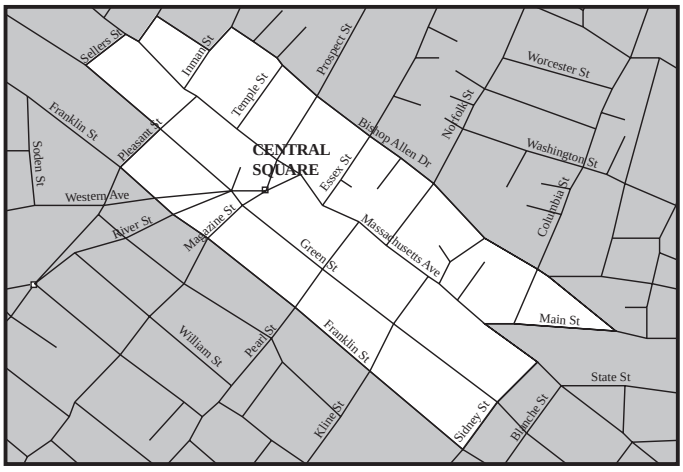
The Federal Highway Administration classifies roads based on their function: [23]

Functional System	Services Provided
Arterial	Provides the highest level of service at the greatest speed for the longest uninterrupted distance, with some degree of control.
Collector	Provides a less highly developed level of service at a lower speed for shorter distances by collecting traffic from local roads and connecting them with arterials.
Local	Consists of all roads not defined as arterials or collectors; primarily provides access to land with little or no through movement.

The purpose of this classification system is to facilitate the design process. Generally, arterial streets have the most travel lanes, heaviest traffic, and widest sidewalks. Local streets tend to be the narrowest, with the lightest traffic. Many Cambridge streets do not fall neatly into any of these street types. For example, some arterial streets have narrow sidewalks, and some residential streets are wider than some collectors are. As such, these are only guidelines for planning. Functional classification is not an exact science, and the function of a particular road can shift as land use patterns change.

II. Major Nodes

A. Central Square



Central Square serves many functions. City Hall, the police station and senior center, the main post office, and the YMCA and YWCA are among the civic institutions located in or near the square. Its many restaurants and clubs make it a center for Boston-area night life. It is surrounded by ethnically and economically diverse neighborhoods; over half the city's residents live within half a mile of the square. The square's stores are a source of reasonably priced goods for neighborhood residents. Some also attract significant numbers of customers from elsewhere in the area.

23 Federal Highway Administration, U.S. Department of Transportation, *Flexibility in Highway Design*, Pub. No. FHWA-PD-97-062 (1997), p. 42.

Central Square.

In the 1820s, Central Square was a hay market where the roads leading from three bridges across the Charles River converged. It was separated from Old Cambridge, the village around Harvard Square, by a "mile or so of woods, brush, and pastureland."[24] Manufacturing and commerce characterized the square and its surroundings from the early nineteenth century. In recent years research and development have replaced most of the city's manufacturing, and Central Square has not escaped this trend. University Park, on the edge of the square, is a major development that is projected to be about 2.3 million square feet when completed, with about 4,000 employees.

Central Square has relatively good public transportation, but its location as a crossroads for the streets that lead across the Charles to Boston and the Mass. Turnpike have led to heavy automobile and truck through traffic. Following an extensive public participation process, Mass. Ave. and most of Central Square's sidewalks were redesigned and reconstructed in 1996 and 1997 to make the square more bicycle and pedestrian friendly.

Among the key design ideas carried out in the Central Square renovations were the following:

- Wider sidewalks, allowing more space for landscaping, sidewalk cafés, bicycle parking, benches, etc.
- Curb extensions at crosswalks to reduce the Mass. Ave. crossings from about 70 feet to about 50 feet
- Elimination of the right turn slip lane at Mass. Ave. and Magazine Street to enable pedestrians on the east side of the intersection to cross Mass. Ave. without waiting for two traffic phases and to expand the plaza
- Reworked traffic signals to give more time for pedestrians and reduce jaywalking
- Improved lighting with a two-tiered system: tall roadway lighting supplemented by lower pedestrian-oriented fixtures at frequent intervals
- Improved bus shelters
- Bicycle lanes on Mass. Ave. to improve bicyclist safety and reduce illegal sidewalk cycling

Actions:

➢Address problems of continued widespread jaywalking and motorists failing to yield to pedestrians at some crosswalks.

➢Provide destination and schedule information at bus stops.

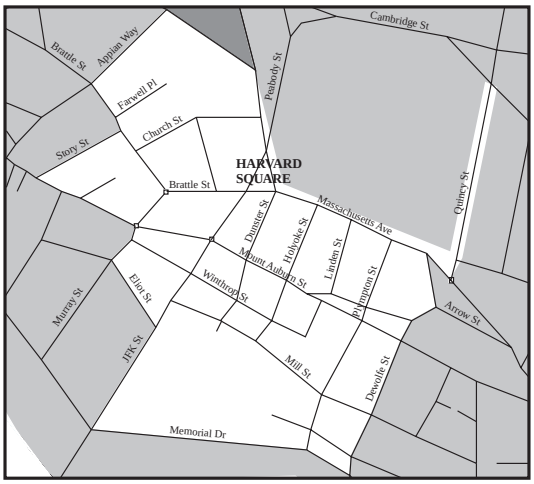
B. Harvard Square

Harvard Square is the commercial center for the Harvard community and a business, entertainment, and shopping center for area residents. It is also one of the Boston area's major tourist destinations.

In the mid-eighteenth century the area around Harvard Square was a pedestrian-oriented village, but as horse-drawn, then motorized vehicles increased on

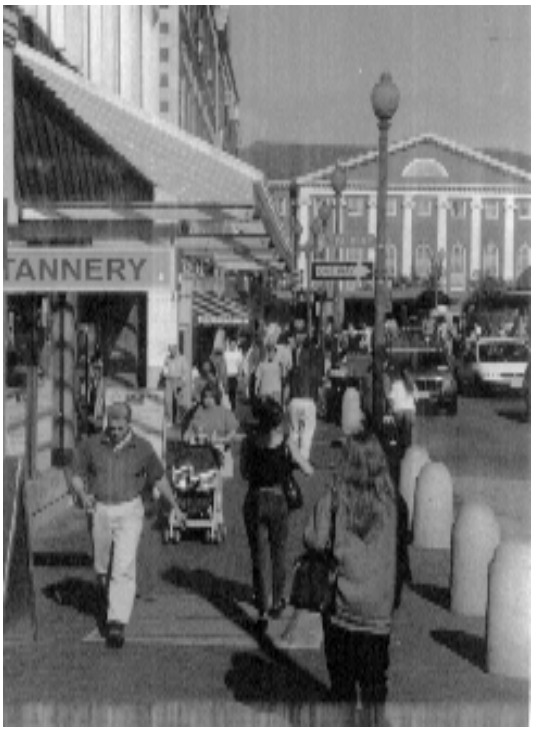
24 F. B. Sutton, *Cambridge Reconsidered*, Cambridge, MIT (1976), p. 51.

the streets of Harvard Square, pedestrians were left with quite narrow sidewalks and inhospitably wide streets to cross.



In 1912 the Harvard Square MBTA station opened. For 60 years, it was the northern terminus of the Red Line and was supplemented by trolley lines radiating into the community. Harvard Square's role as an important transit node made it possible to construct buildings with much less parking than more suburban locations require. This has helped preserve and strengthen the district's pedestrian-oriented character.

Recent construction has affected the pedestrian realm. One of the most unfriendly structures is the motor inn on Mt. Auburn St., designed for the automobile, turning its back on pedestrians. In 1994 Harvard University convened a group to determine how to make the motor inn fit better into its setting. So far, this goal remains elusive, but the building has been made more accessible to people in wheelchairs and other pedestrians. The Holyoke Center complex has useful spaces for pedestrians. The passageway through the building is a welcome connection from Mass. Ave. to Mt. Auburn Street. The Mass. Ave. plaza associated with the center was an open space that for years was quiet; with the arrival of the Au Bon Pain café and public seating, the space exploded with activity, and it is now a place for people to enjoy the urban scene. The newer seating area at the rear, on Mt. Auburn St., is also a pleasant space.



Harvard Square.

Pathways of intimate scale through the middle of blocks add to the sense that the square is primarily for pedestrians. Through an informal cooperative effort among several architects a complex of walkways was begun within the block bounded by Brattle, Story, and Mt. Auburn streets. The City followed their lead, and the path was extended to Mt. Auburn, and a new connection between Brattle St. and Mifflin Place was established beside the One Brattle building.

Another positive development has been the connection of the square to the river. Where the Kennedy School of Government and Charles Hotel are now was, not many years ago, the maintenance yard (the "car barns") for the Red Line trains. When the Red Line was extended in the early 1980s, this land became available for redevelopment. Now, it is pleasant to walk from the station to the locust-lined path to JFK Park and the river.

The reconfiguration of the MBTA station and the associated surface-level urban design work had other effects on the pedestrian environment. The old main subway entrance was made into the Out of Town News stand, and what had been a traffic island became a peninsula attached to the sidewalk, creating more space for pedestrians. Wider sidewalks throughout the project also enhance the urban experience. Especially active is the curving sidewalk leading around to Brattle Street.

Harvard Square's green space is Winthrop Square, at the corner of John F. Kennedy and Mt. Auburn streets. The site of a seventeenth century marketplace, it is an intensely used park. The City's renovation in the 1980s was based on the early pathway system, which simply connects the four corners. An abutting project

completed in 2000 includes extensive historic renovation of two existing structures and the addition of residential use fronting onto the park. Winthrop Street runs alongside the park, and traffic calming is planned to make this extremely narrow street more pedestrian friendly.

There are still issues in Harvard Square. The passage between the main T entrance and Cambridge Savings Bank is narrow. Opinion is divided on the "pit," the area behind the main entrance; some people find the young people who congregate there threatening, others enjoy the space. The need for better information for visitors is of concern to the tourism board. Nonetheless, Harvard Square remains one of the nation's most beloved places for people.

Actions:

➢Create a pedestrian-oriented system of informational signs for visitors to Harvard Square.

➢Maximize traffic signal time allotted to pedestrians.

C. Inman Square

Inman Square.

Of all the business districts discussed in this section, Inman Square is probably the most neighborhood oriented. It has no subway stop. Its scale is more intimate, with narrower streets and smaller buildings. While it continues to serve the neighborhood, it is also a destination for people interested in patronizing its restaurants. In 1993 the businesses in the square drew up guidelines designed to enhance the architectural character of the structures in the square and to build upon its pleasant qualities. Despite its intimate scale, Inman Square is a busy motor vehicle crossroads. Cambridge, Hampshire, Inman, Antrim, and Springfield streets meet in a complex intersection that is confusing and intimidating for pedestrians. Some improvements are planned in conjunction with the planned Cambridge Street renovations.

Action:

➢Continue to study the intersection and pedestrian and vehicular traffic to see if pedestrian circulation can be made more convenient and less intimidating.

D. Kendall Square and Environs

Kendall Square.

A former industrial area that has been radically transformed in recent years, Kendall Square and its surroundings are in great need of better pedestrian accessibility and amenities. While this area has succeeded in becoming economically productive, it has only a few pedestrian-friendly places. The plaza at the MBTA station is lively and attractive, the Sixth Street pedestrian way is a pleasant tree-lined route from the residential neighborhood to the business area, and the perennial garden on Broadway is an oasis of green in this otherwise inhospitable urban office park. Many of the roads are too wide, and there are a number of pedestrian crossings that are difficult.

A series of forums in 1992-1993 pointed to the need for more usable open space at the street level, more ground-floor retail to enliven the streetscape, and housing to help the area attain the mixture of uses that characterizes Cambridge's more appealing and pedestrian-friendly districts.

With additional major development planned, the need for better pedestrian facilities is increasingly urgent.

Actions:

➢Promote development that will provide a better mix of uses in the area and that will improve connections to the historic East Cambridge neighborhood as well as to the MIT campus.

➢Examine the roadways and pedestrian crossings to see where roads can be reconfigured and the area can be made more hospitable for pedestrians. Work with developers to achieve these improvements.

➢Work with Kendall Square businesses to develop better signage for pedestrians, e.g., signs directing pedestrians to the Galleria shuttle bus, One Kendall Square, and the Kendall Square movie complex.

E. Porter Square

Porter Square.

The addition of a Red Line station in 1984 changed the character of Porter Square, but the automobile continues to dominate the square. Although the station is an important public transportation node, with subway, bus, and commuter rail service, pedestrian access to the station and the surrounding area, especially the shopping center, needs considerable improvement. Unlike the other squares, Porter Square is dominated by a private parking lot. Mass. Ave., Somerville Ave., Elm St., and Beacon St. all carry regional traffic that tends to dominate neighborhood traffic and adversely affect pedestrians.

Opportunities to improve the area include the renovations of the shopping center, with better articulated and more appealing pedestrian walkways, and the anticipated road work on Mass. Ave. north of the square, which offers an opportunity to build pedestrian improvements. A Porter Square citizens advisory committee worked with staff and consultants to develop ideas to improve the area. Pedestrian improvements are a major component of the planned changes. Plans for the area include reconfiguring the intersection to make it work better for pedestrians.

III. Spines

A. Massachusetts Avenue

Massachusetts Avenue, known as Mass. Ave., is the city's main street. The only street that runs the length of the city, it is a state highway, Route 2A, and links Cambridge to Boston's Back Bay at one end and to Arlington and the western suburbs on the other. Harvard and MIT are both on Mass. Ave., and it passes through Harvard, Central, and Porter squares. It is lined with major destinations: stores, restaurants, office buildings, residential buildings of various sizes, churches, government institutions. Much of the city's commercial, institutional, and recreational life takes place either on or near Mass. Ave.

Mass. Ave. is fairly well served by public transportation. There are three subway stops—Central, Harvard, and Porter—and two others—Davis and Alewife—are nearby. The No. 1 bus runs east from Harvard Square into Boston, frequently enough during peak travel times to be reliable, and the 77 and 77A buses run west from Harvard Square, less often than the No. 1 but more often than most T buses.

Walking conditions along Mass. Ave. vary. The heavy vehicular traffic is a major problem, because of noise and exhaust fumes and because it can be difficult to cross the street. Most people find walking to and from a traffic light several hundred feet away to get to a destination across the street inconvenient and annoying.

Mass. Ave. north of Porter Square will be renovated in conjunction with sewer work. The planning process began in 1997. The proposed renovations would improve walking conditions in several ways:

- More crosswalks, and curb extensions at many crosswalks, would make it easier for pedestrians to cross.
- Replacement of the continuous median with an interrupted median would slow down traffic. The median would remain as pedestrian crossing islands at unsignalized crosswalks and elsewhere.
- Trees and benches would make walking more pleasant.

Actions:

➢Work with the MBTA to establish frequent alternative-fuel bus service along Mass. Ave. This would help improve air quality and would be an attractive option for pedestrians.

➢Make sure the sidewalks are clear of obstacles. Inform businesses of the importance of keeping a clear path for pedestrians. Install enough bicycle parking facilities to ensure that parked bicycles are not an obstacle.

➢Work with the business community and tourism office to develop and implement a plan for public rest room facilities in business districts along Mass. Ave. and elsewhere, possibly by encouraging many stores and restaurants to allow the general public to use their facilities.

➢Continue engineering, educational, and enforcement efforts to end illegal sidewalk cycling.

B. Cambridge Street

Cambridge Street.

Cambridge Street is the city's second major commercial street. From Lechmere to Inman Square, it is the commercial and institutional heart of East Cambridge. Small local businesses, including stores, restaurants, and professional offices, line both sides of the street. West of Inman Square public and private institutions predominate: Cambridge and Youville hospitals, Harvard Vanguard, the high school, the main library, and various Harvard facilities.

The eastern section has especially heavy pedestrian travel. The sidewalks are often crowded, and double-parked cars and trucks help make the street difficult to cross at times.

The 69 bus serves Cambridge Street. Except during the rush hour, it runs infrequently—every 23 minutes off-peak and every half hour at night and on Sunday. The street lacks amenities for people waiting for buses.

The Cambridge Street Advisory Committee, consisting of residents, business people, and City staff, has developed goals and recommendations for improving the street's East Cambridge end. These include streetscape improvements such as trees, lighting,

signage, seating, curb extensions, and improvements to open space. They also include recommendations concerning parking and housing.

Action:

➢Work with the Cambridge Street neighborhood to achieve the goals laid out in the Cambridge Street Advisory Committee report of July 1997.

IV. Other Major Commercial Areas

A. Alewife Area

Alewife T station.

The City's draft plan, *Alewife: A Plan for Sustainable Development* (October 1993), contains many ideas to make this 370-acre district more user friendly, especially for pedestrians. Improvements are planned for this gateway to Cambridge, broadly defined as the sequence of entry routes including Route 2, Alewife Brook Parkway and Fresh Pond Parkway (both MDC roads), and Concord Avenue. At present these roads are usable by automobiles but extremely unwelcoming for pedestrians. The Alewife Red Line Station and the bus routes that terminate at the T station make the area somewhat accessible by public transportation, but it is inhospitable for pedestrians, with a lack of sidewalks, heavy traffic, wide curb cuts, development fronted by parking lots, and few opportunities for pedestrians to cross the street.

The City has developed and negotiated with the MDC a plan for Fresh Pond Parkway, a key access to the area, that will improve the road for pedestrians. Improvements include:

- pathways, with separate pedestrian and bicycle facilities where possible
- crosswalks with push-button signals
- reduced curb cuts
- new lighting and landscaping.

Additional development is planned for the Alewife area. This as well as any redevelopment should be pedestrian oriented.

Actions:

➢Pedestrian routes to the T station need to be a priority. Widen sidewalks where possible. Construct separate facilities for bicycles.

➢Promote creation of direct, safe, appealing pedestrian routes through parking lots, e.g., to the movie theater.

➢Plant as many trees as can be accommodated without compromising pedestrian access and safety. Other greenery can be an amenity, but front lawns wider than 20 feet tend to isolate the buildings that are set back.

➢Scale and site street furniture—lighting, benches, signs, trash receptacles— with pedestrians in mind. These elements, especially signage, should also be geared to bicyclists.

➢Discourage deep building setbacks and promote pedestrian-friendly construction, with doors and windows on the street and no blank facades. Parking should be located behind or to one side of buildings.

➢Encourage ground floor retail use along the primary pedestrian ways.

➢Promote creation of pedestrian-oriented destinations, e.g., restaurants, stores.

➢Work with private developers and property owners to create stopping places that make a walk more enjoyable. These include pocket parks and other places to sit, including shady spots under a tree but in public view.

B. Lechmere/North Point

Centanni Way.

Across the MDC's Msgr. O'Brien Highway from Lechmere Station is North Point, a 70-acre district equivalent in area to the entire East Cambridge riverfront. This district is bounded by Msgr. O'Brien Highway, the Charles River, the Somerville rail yards, and Charlestown. Many people were unaware that North Point is part of Cambridge until controversy arose in the late 1980s around the proposed construction of the world's largest traffic interchange over the Charles River as part of the Central Artery/Tunnel project. The fourteen-lane Charles River Crossing currently planned, while smaller than Scheme Z, the original design, will include highway ramps on the northeast corner of North Point.

North Point is the Cambridge section of the "lost half mile," a forlorn stretch of river front that has been almost totally inaccessible to pedestrians, as well as to most vehicles, for all of its history as an industrial and railroad corridor. In 1986, prior to the first Charles River Crossing proposals, the City enacted new zoning and urban design guidelines intended to guide the redevelopment of this area over time toward a mix of new private uses relating to a public system of streets and parks. The City's urban design vision is being incorporated into the State and MDC's plans for creating a new Charles River Basin park. Taking into account that this is a long-term project, there are some key features that would make this a welcoming place for pedestrians:

- An attractive new Lechmere Station, for which preliminary designs have been done, to be built on the North Point side of Msgr. O'Brien Highway. This is part of a long-term plan to extend the Green Line into Somerville. An essential feature will be a new intersection of Msgr. O'Brien Highway and First Street, with adequate green time for easy pedestrian crossing of the highway. This will connect development in North Point to the East Cambridge neighborhood as well as to the newer uses along the riverfront.
- Depending on how the areas under the Central Artery are designed, a pathway from Cambridge to Charlestown and across the Charles River to Boston that is as attractive as possible.
- A sidewalk system that provides pedestrians with pleasant, direct routes through North Point.
- A connection from the Museum of Science to North Point via a pedestrian bridge.

Action:

➢Work with State, MDC, and MBTA officials to ensure that pedestrian and public transit access are priorities.

V. Neighborhoods

As neighborhood plans are developed, pedestrian routes, pedestrian-oriented traffic calming measures, lighting, and the placement of amenities such as benches should be studied, taking into consideration each neighborhood's pedestrian travel desire lines and the location of gathering places. Traffic should move slowly on local streets.

Actions:

➢As road reconstruction is planned, look for opportunities to implement traffic calming measures.

➢Work to reduce the state in-city speed limit from 30 to 25 miles an hour.

VI. Pedestrian Network

A. Paths, Routes through the City

When they can, pedestrians generally take the most direct routes between two points. Evidence of this is clear in parks that do not have reasonably direct paved paths. Typically, enough walkers ignore roundabout paths to wear direct paths across the grass. Direct walking routes are an important amenity.

Cambridge does not have the super blocks or residential cul-de-sacs that characterize much American development that has taken place since the automobile became dominant. Nonetheless there are places where pedestrian paths are important because there aren't enough direct routes along roads (e.g., Kendall Square) or because there are a lot of walkers (e.g., Harvard Square).

As buildings are constructed or renovated, it may be possible to include more pedestrian paths.

Actions:

➢Designate pedestrian routes of special importance for special treatment. These would include routes that are heavily walked and routes of special historic, artistic, or scenic significance. Consider installing benches and direction signs for pedestrians and look for opportunities for miniparks and linking pathways.

➢Work with the Office of Tourism to develop a Cambridge heritage trail, including the present Black Heritage Trail, which should be made more visible.

B. Recreational Areas

1. Alewife Reservation

This 115-acre MDC reservation on the border of Cambridge, Belmont, and Arlington is a remnant of the Fresh Pond marshes. *An Alewife Area Ecology Guide* describes it as a place that offers "adventure, a touch of wildness and freedom, diverse experiences, and views of water, green, and distant hills."[25]

Currently, access to the reservation is not well marked. As with Fresh Pond, issues have been raised about the number of people who can use the reservation without compromising it as a natural resource. Unlike Fresh Pond, it is easy to reach from the Alewife MBTA Station.

Action:

➢Work with the MDC and community groups to develop trailhead signage for Alewife Reservation.

25 Stewart Sanders, *An Alewife Area Ecology Guide*, Cambridge, Mystic River Watershed Association (1994).

2. Charles River

The MDC park along the Charles River is popular throughout the year. It is the MDC's most intensely used reservation. The Dr. Paul Dudley White Bicycle Path is heavily used by pedestrians and in-line skaters as well as bicyclists. It is one of the oldest bicycle paths in the United States and is a substandard facility. It is too narrow, has some sharp turns at blind corners, and has inadequate road crossings and other problems. While it is one of the city's most important and scenic open spaces, the facilities for pedestrians need improvement. Because it is an MDC park, the City's role is advisory.

In June 1997 the MDC began a planning process to develop a master plan for the Charles River Basin.

Action:

➢Work with the MDC to develop ways to minimize conflicts among park users, to improve pedestrian crossings of Memorial Drive, and to increase citizen participation in managing the reservation.

3. Fresh Pond

Path at Fresh Pond.

The 2.4 -mile bicycle and pedestrian path around Fresh Pond is popular for recreational walking and for running. Aside from the Alewife Reservation, it is the Cambridge open space that comes closest to offering a wildlife experience. Access to the reservation is difficult and unpleasant for pedestrians. The planned improvements to the Fresh Pond Parkway corridor (see discussion of the Alewife area above) should make it much easier for people to get to the reservation on foot.

Because Fresh Pond holds the city's drinking water, making it easier for more people to use the area needs to be balanced with threats to the water supply that might arise if use of the park space increases dramatically.

Action:

➢Continue to work with the MDC to make Fresh Pond accessible for pedestrians and to make Fresh Pond Parkway a safer, more pleasant walking route.

4. New Parks

In the last decade, some much-needed new park facilities have been created on sites that had been unwelcoming to pedestrians. These include the 50-acre Danehy Park on the former City dump, 13 acres of parks on former industrial land in East Cambridge (7-acre Lechmere Canal Park, 1-acre Front Park, 1-acre Charles Park, etc.) and JFK Park near Harvard Square. Linear Park extends from Davis Square in Somerville to Russell Field, where it connects with the Alewife Station. These green spaces are primarily oriented to pedestrians, although some paths are shared with bicyclists, and because the parks are linked to or near important pedestrian pathways, they have opened up new possibilities for adult recreation and pedestrian travel along car-free paths. Linear parks and other scenic pedestrian routes offer opportunities for walking that the city's more compact stand-alone parks do not provide.

Actions:

➢Survey and implement opportunities to make existing parks more accessible for pedestrians, including children, and better connected to surrounding uses.

➢Continue to support a new connection now under consideration: a pathway along the river side of the Museum of Science parking garage that would link the museum to Lechmere Canal Park. While funding has yet to be identified, there is a great deal of support and interest on the part of the City, the MDC, the museum, and people who live and work in the East Cambridge river front.

➢Continue work on projects to link parks and create pedestrian recreational walking routes, e.g., connecting Davis Square to Alewife, to Fresh Pond, to the Charles River.

➢Explore potential new off-road multi-use paths, e.g., along the Grand Junction right-of-way through Cambridgeport and East Cambridge.